REMARKS

The examiner is referred to the office action for the complete text of the rejections. Applicant will excerpt from the rejections, as needed, in the remarks below.

Applicant has provided the correct identifier for claims 24-41 and has corrected the typographical errors in claim 2. Applicant has added new claims 42-57.

35 U.S.C. 101

The examiner rejected Claims 1-12 under 35 U.S.C. 101, as alleged directed to non-statutory subject matter. The examiner stated in part:

> Claims 1-12 recite a process comprising the step of receiving.

Applicant's claim 1 requires *inter alia*: "receiving by the server computer system from client systems used by market participants." As presented, Claim 1 is tied to a machine, a server computer system. The action of receiving by the server computer system as recited in Claim 1 is not mere extra-solution activity, because it involves the very machine related activity required for practice of embodiments of the claimed invention.

Moreover, the examiner further rejected claims 2-12. However, these claims further require significant, machine related activity. For example, claim 2 requires the action of "calculating by the server computer system, a total size of quotes at a particular price level, by … ." Claim 2 likewise recites significant activity that involves a calculation of quote sizes according to the types of quotes received in claim 1. Claims 4-8, 11 and 12 depend directly or indirectly from claim 2 and in addition add further actions performed by or on machines.

Claims 3 and 10 require receiving by the server system … reserve quote[s] and claim 9 requires determining if the quote is displayable attributable or displayable non-attributable quote size … adding … corresponding sizes and causing rendering of a quote montage. Each of these actions serves to tie the method to a machine and involves significant activity.

The examiner also stated regarding claims 20-23:

> Claims 20-23 are rejected as being directed to a signal wave. Specifically, the claims are directed to a computer readable medium which may encompass a signal wave. The United States Patent and Trademark Office (USPTO) is obliged to give claims their broadest reasonable interpretation consistent with the specification during proceedings before the USPTO. *See In re Zletz*, 893 F.2d 319 (Fed. Cir. 1989) (during patent examination the pending claims must be interpreted as broadly as their terms reasonably allow). The broadest reasonable interpretation of a claim drawn to a computer readable medium (also called machine readable medium and other such variations) typically covers forms of non-transitory tangible media and transitory propagating signals *per se* in view of the ordinary and customary meaning of computer readable media, particularly when the specification is silent. *See* MPEP 2111.01. When the broadest reasonable interpretation of a claim covers a signal *per se*, the claim must be rejected under 35 U.S.C. § 101 as covering non-statutory subject matter. *See In re Nuijten*, 500 F.3d 1346, 1356-57 (Fed. Cir. 2007) (transitory embodiments are not directed to statutory subject matter) and *Interim Examination Instructions for Evaluating Subject Matter Eligibility Under* 35 *Us.* C. § *101*, Aug. 24, 2009; p. 2.

Applicant has amended claim 20 to require a computer readable storage device. As such, the claim cannot reasonable cover a signal or propagating wave.

35 U.S.C. 102(b)

The examiner rejected Claims 1-23 under 35 U.S.C. 102(b) as being anticipated by Gutterman et al. (WO 91114231).

Applicant disagrees. Gutterman neither describes nor would render obvious "receiving by the server computer system ... quotes ... including fields to indicate, a first size value that indicates a displayable, attributable size amount of the quote and a second size value that indicates an additional quote size that is displayable on displays of client systems, as trading interest in a security, but not attributable to any market participant."

The examiner stated:

Specifically as to claim 1, Gutterman et al. disclose a method, executed in a computer server system of an electronic market, for managing quotes for a security, the method comprising: receiving by the server computer system from client systems used by market participants, quotes, the quotes including fields to indicate whether the quote is to bid or offer a security, a first size value that indicates a displayable, attributable size amount of the quote and a second size value that indicates an additional quote size, that is displayable on displays of client systems, as trading interest in a security, but not attributable to any market participant (see page 1, paragraphs 1 and 4; page 6, paragraphs 3 through page 7 paragraph 4 and page 9 paragraph 5 through paragraph 2 on page 11 and pages 14-16).

The relied on sections from Gutterman are reproduced below. Applicant will address specific comments to each section in Gutterman. More specifically, taken as a whole, Gutterman clearly does not describe quote entry as "quotes … including fields to indicate, a first size value that indicates a displayable, attributable size amount of the quote and a second size value that indicates an additional quote size that is displayable … as trading interest in a security, but not attributable to any market participant."

Gutterman, p. 1 paragraph 1 is set forth below:

The present invention relates to computer-based techniques for managing orders placed in a physical market for trading instruments such as stocks, bonds, stock options, futures options and futures contracts on commodities including agricultural products, financial instruments, stock market indices and the like.

Nothing in this paragraph describes "quotes … including fields to indicate … a first size value that indicates a displayable, attributable size amount of the quote and a second size value that indicates an additional quote size that is displayable on displays of client systems, as trading interest in a security, but not attributable to any market participant." The paragraph describes managing orders in a physical market.

Gutterman, p. 1 paragraph 3 is set forth below:

> The futures exchanges house centralized auction markets (called designated contract markets) where standardized contracts for future delivery of specified quantities of commodities are bought and sold by open outcry. The open outcry method of auction trading is widely believed to be the best method of buying and selling goods because of the fast access to the market it provides to all prospective traders. It is important to note that the exchanges themselves do not trade futures contracts, nor do they set prices at which contracts are traded. They merely furnish a place where market participants and their brokerage representatives can meet to trade futures contracts.

Nothing in this paragraph describes "quotes … including fields to indicate … a first size value that indicates a displayable, attributable size amount of the quote and a second size value that indicates an additional quote size that is displayable on displays of client systems, as trading interest in a security, but not attributable to any market participant." The paragraph describes futures exchanges and the open outcry auction.

Gutterman, p. 6 is set forth below:

> 6
>
> and pencil. Occasionally, the decks are as much as an inch thick and require great memory skill and anticipatory planning.
>
> Perhaps the most common type of order is the "market order" in which the customer states how many contracts of a given delivery month he wishes to buy or sell. He does not specify the price at which he wants to initiate the transaction but simply wants it placed as soon as possible at the best possible price.
>
> "Contingency orders" are those that impose certain limitations beyond the quantity and delivery month, such as limits in price or time, or both. A "price limit order" contains a price limitation that is specified by the customer; it can be executed only at the price specified or at a better price level. A "fill or kill" order contains a specified price at which the order must be executed or it is to be immediately cancelled.

"Stop orders" are sometimes confused with "limit orders", but they are actually quite different. A "buy stop order" instructs a broker to execute the order when the price of a commodity rises to a specified level above the current market price. The "buy limit order" is usually placed below the current market price and must be executed at the limit price or better. The difference between a buy limit order and a buy stop order is exemplified as follows. A customer may be inclined to buy December sugar, which could be selling at a price of 5.43 cents per pound. The customer could tell his broker to buy a contract at a price not to exceed 5.35 cents;

Nothing in this page 6 describes "quotes … including fields to indicate … a first size value that indicates a displayable, attributable size amount of the quote and a second size value that indicates an additional quote size that is displayable on displays of client systems, as trading interest in a security, but not attributable to any market participant." The paragraph describes a stop order and a limit order that deal with the prices at which the orders are executed.

Gutterman, p. 7 is set forth below:

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this is a "buy limit order". Another customer under the same circumstances could tell his broker to buy a contract of December sugar but not until the price rises to at least 5.55 cents, at which point the order will be executed at the market; this is a "buy stop order". The buy stop order is placed above the current market and may be executed at the price specified on the stop, above it, or below it because it is executed at the market price after the stop price is touched; at that point, the stop is said to be "elected".

A "sell stop order" instructs a broker to execute an order when the price falls to a given level, at which point it is to be executed at the market price. Unlike a typical "sell limit order", the sell stop order is below the current market price and may be executed at a price at, above, or below the specified stop price when it is elected.

Some customers will raise their stop prices as the market price advances in an effort to gain as much as possible from a major move, while making certain that they can probably lose back only a little of the gain. Such an order is frequently called a "trailing stop".

A somewhat more complex order is the "stop limit order". The customer might instruct his broker not to buy sugar until it rises to 5.53 cents per pound and not to pay more than 5.55 cents. This is unlike the unlimited stop, which becomes a market order when the stop price has been touched. The limit price may be the same or different from the specified stop.

Nothing in this page 7 describes "quotes … including fields to indicate … a first size value that indicates a displayable, attributable size amount of the quote and a second size value that indicates an additional quote size that is displayable on displays of client systems, as trading interest in a security, but not attributable to any market participant." This paragraph again descibes differences bettween types of stop and limit orders.

Gutterman, pages, 9-11 are set forth below in succession.

and then immediately cancel the remainder of the order to avoid inadvertently reversing his position.

"Scale orders" are used to establish or liquidate positions as the market moves up or down. The sugar trader may instruct his broker to buy a contract of sugar at 5.45 cents and another contract each time the price drops five points from that level until he has accumulated six contracts. When he sells out his position, he may order the broker to sell one contract at 5.75 cents and another contract each time the price rises five points until his six contracts have been sold.

"Contingent orders" are filled by the broker after the price of another contract or even another commodity reaches a specified level.

"Spreads" may be established at a fixed difference rather than at specified prices because the spreader is concerned only with the difference rather than the level. He may therefore order his broker to "buy one July pork bellies and sell one February bellies at 80 points difference or more, premium February." Such an order could be used to establish a new spread position, which the trader believes will narrow, or to take the profit in a position at a narrower difference and be satisfied with the profit at 80 points difference.

Although the foregoing description has concentrated on the commodity futures markets, it will be understood that the order management system of the present invention is applicable to all markets, including those for securities trading. Securities markets are usually based on actions by

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specialists, each of whom is the market maker for one or more specific securities. In the New York Stock Exchange, for example, the ultimate determination of price for any given transaction frequently is determined by a specialist who deals in a particular stock and who maintains a running list or "book" of offers to sell and orders to purchase that stock. The specialist may complete a transaction in the stock whenever one or more purchase and sell orders can be matched with respect to price; on occasion, the same specialist purchases the particular stock in which he specializes or sells the same stock in order to maintain a market for the stock and prevent violent fluctuations in its price. Similar functions, particularly with respect to the matching of orders to purchase and to sell, must be carried out in all auction markets for the marketing of fungible goods, including such commodities as wheat, corn, and the like as well as stocks and bonds.

A computation system for establishing prices in auction trading for the securities market is described in U.S. Patent 3,581,072 to Nymeyer. That computation system comprises a main data store for recording encoded data items representative of orders to buy and to sell the goods, such orders including orders at specific prices and other orders "at the market." The system includes a buy order sequencing device for arranging and recording purchase offers first in descending order by price and secondly by time of entry so that at each price level the oldest orders are uppermost. A sell order sequencing device is provided for arranging and

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recording all offers to sell first in ascending order by price and secondly in descending order by time so that once again the oldest orders are the highest at each price level. A closing price store is provided to record the last actual selling price for the goods. The closing price store and the main data store are coupled, by suitable control means, to the sequencing devices in order to transfer the recorded data items from the data store to the sequencing devices with "at market" prices being transferred at the aforementioned last selling price. The two sequencing devices are coupled to a comparator that compares the sell orders and the buy orders, when they have been arranged in sequence, to determine the lowest buy order price that is equal to or greater than a recorded sell order and thus establish a new selling price for the goods.

More than such a system for merely matching buy and sell orders, the present invention provides a system that allows brokers to manage their decks and to improve the accuracy of communications between the trading floor and the customers. The present invention can also reduce the back office costs to trading firms by reducing the volume of paperwork and consequent errors.

SUMMARY

In accordance with the present invention, there is provided a broker workstation for managing orders in a market for trading commodities, securities, securities options,

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Gutterman, pages, 14-16 are set forth below in succession:

The broker workstation in accordance with the present invention allows the broker to manage the FCMs' orders more efficiently and to handle order acceptances, fill reports and cancel confirmations more effectively. When used with an electronic order entry system, the broker workstation enables the broker to communicate information as to the status of the orders he is working. Therefore, the FCM can track the orders from the time they are entered into the electronic order entry system until the time the orders are returned. The broker workstation can also feed information directly to the customer and clearing house via the electronic order entry system of the exchange. The audit trail is thus enhanced for the FCMs, the broker and the exchange. From the improved procedures provided by the present invention, savings in the form of reduced staff and reduced errors due to manual handling of paper orders can also be expected.

The broker workstation in accordance with the present invention is a desk management system that continues to permit the broker to use his expertise to execute the order depending on the market situation. The broker has indicated on his workstation the different types of orders residing in his desk, including the total quantity at a price of limit orders, stops, stop limits, M.I.T.s, and orders with special instructions. There is also an area indicating the total market orders to buy and sell. Just as in the present markets, the broker must judge how to get the best order execution, whether that is in the physical pits or on an electronic trading system. The system of the present

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invention thus enables the broker to better serve the needs of the market.

Referring now to the figures in which like reference numerals indicate like parts throughout, Figure 1a shows a block diagram of an apparatus in accordance with the present invention comprising a broker workstation 10. As described in more detail below, the broker workstation 10 may advantageously be a MICROEXPLORER processor, made by Texas Instruments Inc., that includes a MACINTOSH II computer, manufactured by Apple Computer, Inc., having a high-resolution (e.g., 350 dots per inch), color, touch-sensitive display screen. Suitable touch-sensitive screens are made by Apple Computer, Inc. and it will be appreciated that many other suitable devices are commercially available. One embodiment of a broker workstation 10 is illustrated in Figure 1b which shows a high-resolution display screen 12, a keyboard 14 and an auxiliary control device 16, such as a trackball or mouse. It will be understood by those of ordinary skill in the art to which the present invention pertains that the various keys and touch-sensitive screen functions can also be implemented by a conventional keyboard, mouse and other standard input devices.

The workstation 10 carries out a plurality of instruction modules that can be written in any suitable computer language, such as LISP, PASCAL and C, although LISP is preferable because of the flexibility it provides. In addition, the broker workstation 10 shown in the block diagram of Figure 1a is representative of a plurality of broker workstations that may be operational simultaneously.

Nothing in this page describes "quotes … including fields to indicate … a first size value that indicates a displayable, attributable size amount of the quote and a second size value that indicates an additional quote size that is displayable on displays of client systems, as trading interest in a security, but not attributable to any market participant."

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A workstation receiver module 18 receives suitable communications from an electronic order entry system and price reporting system that are provided by the exchange and are electronically connected to the workstation 10 by a suitable link 20. The receiver module 18 is thus a port into the workstation 10, which may be activated initially by an attempt at connection by the order entry system. It will be understood that connection of the workstation 10 to an electronic price reporting system would be made in a manner substantially similar to the connection to the electronic order entry system and that the communication link 20 may comprise any of the well known hard-wired, radio-frequency or optical technologies.

In operation, the workstation receiver module 18 receives orders and other information directed to the workstation and electronically attaches or associates that information with a time of receipt indication. Such time stamping is important for audit and integrity functions of the system, as well as for carrying out order-matching features of some types of trading system. The received order and time-stamp are then stored temporarily in a workstation-in queue 22 in the workstation receiver module 18, and the module 18 causes the workstation 10 to send an acknowledgement of receipt to the transmitting order entry system. In some situations, the workstation receiver module 18 would cause the workstation 10 to send a not-acknowledged message to the order entry system so that the information would be retransmitted. Such situations would typically occur when the workstation-in

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As shown above, the examiner has not point out specifically where Gutterman allegedly describes "quotes … including fields to indicate … a first size value that indicates a displayable,

attributable size amount of the quote and a second size value that indicates an additional quote size that is displayable on displays of client systems, as trading interest in a security, but not attributable to any market participant."

In the passages that the examiner has relied upon, these passages deal with prices of orders. Nothing in the passages describe conditions by which such orders are displayed and conditions under which displayed orders are displayable attributable or non-attributable to maket participants. Moreover, Gutterman does not specifically describe "quotes," which is a feature of the rejected claims.

Nothing in the relied on portions from Gutterman describes: " receiving by a server computer system quotes ... including fields to indicate ... a first size value that indicates a displayable, attributable size amount of the quote and a second size value that indicates an additional quote size that is displayable on displays of client systems, as trading interest in a security, but not attributable to any market participant."

Applicant requests that the examiner specifically point out by **page and line number** in Gutterman (not by merely a non-specific citation to numerous pages) where these features are allegedly taught or clarify for the record that the examiner is not giving any patentable weight to the features, and concomitant therewith cite to the authorities and furnish reasoning why the examiner believes not according patentable weight to be proper.

All of the dependent claims are patentable for at least the reasons for which the claims on which they depend are patentable. In addition, the dependent claims add distinct features for reasons of record.

Applicant has added new claims.

Claim 42 is neither described nor rendered obvious by Gutterman because claim 42 requires: "... instructions ... to receive quotes ... including fields for ... a first size value that is a displayable, attributable size amount attributable to a particular market participant and a second size value that is a displayable, non-attributable size amount, calculate total size values of received quotes ... and generate a user interface to render total size values representing a total of

the number of displayable shares represented by the received quotes ... ," for analogous reasons given in claims 1 and 2.

Claim 51 requires: "... instructions ... to receive ... quotes including fields to indicate ... a first size value that indicates a displayable, attributable size amount of the quote and a second size value that indicates a[[n]] ... quote size that is displayable ... as trading interest ... but not attributable to any market participant, calculate total sizes values of quotes at price levels; and cause a user interface to be rendered ... including a first plurality of indicators that display as a numeric quantity total size values of attributable and non-attributable quotes ... and a second, separate set of indicators that displays attributable quotes. The claim is also allowable over Gutterman for analogous reasons.

All of the new dependent claims are patentable for at least the reasons for which the claims on which they depend are patentable. In addition the dependent claims add distinct features.

It is believed that all the rejections and/or objections raised by the examiner have been addressed.

Canceled claims, if any, have been canceled without prejudice or disclaimer.

In view of the foregoing remarks, applicant respectfully submits that the application is in condition for allowance and such action is respectfully requested at the examiner's earliest convenience.

Any circumstance in which the applicant has (a) addressed certain comments of the examiner does not mean that the applicant concedes other comments of the examiner, (b) made arguments for the patentability of some claims does not mean that there are not other good reasons for patentability of those claims and other claims, or (c) amended or canceled a claim does not mean that the applicant concedes any of the examiner's positions with respect to that claim or other claims.

The Petition for Extension of Time fee is being paid concurrently on the Electronic Filing System (EFS) by way of Deposit Account authorization.

The excess claim fees were previously paid. If a deficiency is due in those excess claim fees please apply that deficiency and any necessary charges or credits to Deposit Account 06-1050, referencing the above attorney docket number 09857-0023001.

Respectfully submitted,

Date: October 27, 2011

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